



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/069,532	03/06/2002	Hiroshi Ishii	020245	4586
38834	7590	05/19/2005	EXAMINER	
WESTERMAN, HATTORI, DANIELS & ADRIAN, LLP 1250 CONNECTICUT AVENUE, NW SUITE 700 WASHINGTON, DC 20036			MISKA, VIT W	
			ART UNIT	PAPER NUMBER
			2841	

DATE MAILED: 05/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/069,532

Applicant(s)

ISHII ET AL

Examiner

Vit W. Miska

Art Unit

2841

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 March 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4,7,8,14 and 17-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4,7,8,14,17-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1-4, 7, 8, 14 and 17-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dunstan ('110) in view of Koenck ('523) and Chalasani('436). With respect to claims 1-4, the Dunstan reference discloses an electronic device with a timer including rechargeable secondary battery 34, measuring means 74-78 for measuring the state of the battery, memory 60 for storing the measured information and properties of the battery, load 26, controller 30 for controlling driving of the load and functioning as a manager for managing the battery as function of the measured information and time information (see col. 6, lines 40ff), timer 59, time setting functions 62, 63 (see also col. 14, lines 61-62 suggesting other time setting functions), interface 32,36,38 for connecting charger 32 for charging battery 34 based on information from the measuring means, memory and timer (see col. 6, lines 55ff).

2. Regarding the addition of “an electronic device of an electric vehicle” to claim 1, the body of claim 1 lacks any further correlation of the “device” elements with an electric vehicle, and therefore the phrase “of an electric vehicle” is treated as a statement of intended use and not having patentable weight. Further, it would be obvious to one of ordinary skill in the art that any portable electric or electronic device, particularly the electric devices suggested in the three references employing a rechargeable battery system, may be used in an electric vehicle.

3. The Dunstan patent does not specifically refer to a time displaying function for timer 59. However, one of ordinary skill in the art would be familiar with the conventional practice of providing a display for indicating entered or calculated variables in an electronic device, e.g. an electronic timepiece. Koenck teaches this feature with display 12, 72 for indicating quantities related to battery charging. One skilled in the art thus would provide a display for indicating the various quantities in the Dunstan device, as taught by Koenck, to provide to the user information regarding the charging conditions, including set or measured time periods.

4. Dunstan further does not disclose a time setting function for setting a specified time based on which charging is started. Chalasani et al, however, teaches charging of battery 220 at certain time periods of the day by using timer 260, see col. 4, lines 50ff .

One of ordinary skill in the art, having both references would thus be taught to charge battery 34 of Dunstan selectively during certain time periods, as done in Chalasani et al, to automate the charging process. Whether a charge completion time or charge starting time is used as the time input would be an obvious choice for one skilled in the art for accomplishing the same purpose of charging the battery during a selected time period.

5. Regarding claims 7 and 8, the battery, measuring means and memory may be constructed as an integrated battery unit, attachable to the electric device main body (see col. 5, lines 37ff of Dunstan).

6. A commercial power source 42 supplies power to charger 32, as claimed in claims 9-10. The battery charger and battery are indicated as being part of an electric device, see col. 6, line 42. With respect to the charger being detachable from the device, one of ordinary skill in the art would recognize that any component of an electric device may be made detachable for purposes of exchange, repair, etc., and thus it would be obvious to do the same with the charger.

7. With respect to claims 17-20, Dunstan discloses periodically measuring the battery conditions at step 92 of Fig. 6 and described at col. 10, lines 33ff. Further, at col. 13, lines 45ff the patentee indicates that the charging algorithm is controlled according to various battery conditions and properties. The use of timer 55 or 59 for the

purpose of providing such periodic signals for measurement and charging of the battery, although not specifically mentioned in Dunstan, would be an obvious extension of this teaching.

8. Applicant's comments have been given careful consideration but have not been found persuasive. Applicant's argument with respect to the claims rejected over Chalasani is based on the premise that the patentee does not disclose or suggest "a charger for charging said secondary battery based on information of said measuring means and/or said memory and the specified time". However, it is well known to those familiar with this technology that battery charging is generally performed until a battery is fully charged, i.e. a sensed battery condition indicating a fully charged state.

Chalasani suggests this at col. 3, lines 10-14:

"The LVD switch 160 is shown coupled to a controller 150 that monitors the status of the battery reserve system 130 and selectively couples the battery 140 to the rectifier 120 and the electrical load 170."

This description of a "prior art controller" 150 corresponds to controller 250 of the disclosed invention having the suggested time of day feature noted above. Thus, it is obvious to one of ordinary skill in the art that controller 250 charges battery 220 based on information from measuring means (sensed battery conditions) and the time of day in the suggested embodiment at col. 4, line 50. The temperature sensing feature of

Fig. 2 is thus an additional control condition in addition to the conventional battery charging conditions (full voltage) of the prior art Figure 1.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vit W. Miska whose telephone number is 571-272-2108. The examiner can normally be reached on M-F 9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, K. Cuneo can be reached on 571-272-1957. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Vit Miska
Primary Examiner